

## *Siphonisca aerodromia* (Tomah Mayfly)

### Priority 1 Species of Greatest Conservation Need (SGCN)

**Class:** *Insecta* (Insects)

**Order:** *Ephemeroptera* (Mayflies)

**Family:** *Siphonuridae* (Primitive Minnow Mayflies)

#### General comments:

Despite extensive surveys (>250 sites), only ~22 EOs; Northeast regional endemic, with only 1 other extant EO known (NY)

#### Species Conservation Range Maps for Tomah Mayfly:

Town Map: [Siphonisca aerodromia\\_Towns.pdf](#)

Subwatershed Map: [Siphonisca aerodromia\\_HUC12.pdf](#)

#### SGCN Priority Ranking - Designation Criteria:

##### Risk of Extirpation:

Maine Status: Threatened

**State Special Concern or NMFS Species of Concern: NA**

**Recent Significant Declines: NA**

##### Regional Endemic:

*Siphonisca aerodromia's* global geographic range is at least 90% contained within the area defined by USFWS Region 5, the Canadian Maritime Provinces, and southeastern Quebec (south of the St. Lawrence River).

Notes: Despite extensive surveys (>250 sites), only ~22 EOs; Northeast regional endemic, with only 1 other extant EO known (NY)

**High Regional Conservation Priority: NA**

**High Climate Change Vulnerability: NA**

**Understudied rare taxa: NA**

**Historical: NA**

**Culturally Significant: NA**

#### Habitats Assigned to Tomah Mayfly:

##### Formation Name      Boreal Upland Forest

Macrogroup Name      Boreal Upland Forest

Habitat System Name: Acadian Low Elevation Spruce-Fir-Hardwood Forest      Notes: *secondary (riparian only)*

##### Formation Name      Freshwater Aquatic

Macrogroup Name      Rivers and Streams

Habitat System Name: Headwaters and Creeks      Notes: *where seasonally flooded sedge meadow present; not a headwater stream specialist*

Habitat System Name: Medium River      **\*\*Primary Habitat\*\***      Notes: *where seasonally flooded sedge meadow present*

Habitat System Name: Small River      **\*\*Primary Habitat\*\***      Notes: *where seasonally flooded sedge meadow present*

##### Formation Name      Freshwater Marsh

Macrogroup Name      Emergent Marsh

Habitat System Name: Laurentian-Acadian Freshwater Marsh      Notes: *where seasonally flooded sedge meadow present*

Macrogroup Name      Wet Meadow-Shrub Marsh

Habitat System Name: Laurentian-Acadian Wet Meadow-Shrub Swamp      Notes: *where seasonally flooded sedge meadow present*

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Class: *Insecta* (Insects)Order: *Ephemeroptera* (Mayflies)Family: *Siphonuridae* (Primitive Minnow Mayflies)**Formation Name**      **Northeastern Upland Forest****Macrogroup Name**      **Northern Hardwood & Conifer****Habitat System Name:** Laurentian-Acadian Northern Hardwoods Forest    **Notes:** *secondary (riparian only)***Habitat System Name:** Laurentian-Acadian Pine-Hemlock-Hardwood Forest    **Notes:** *secondary (riparian only)***Formation Name**      **Northeastern Wetland Forest****Macrogroup Name**      **Northeastern Floodplain Forest****Habitat System Name:** Laurentian-Acadian Floodplain Systems    **Notes:** *secondary (riparian only)***Stressors Assigned to Tomah Mayfly:**

Stressor Priority Level based on Severity and Actionability		Moderate Severity	High Severity
	Highly Actionable	Medium-High	High
	Moderately Actionable	Medium	Medium-High
	Actionable with Difficulty	Low	Low

**IUCN Level 1 Threat**      **Other Options****IUCN Level 2 Threat:**      Lack of knowledge**Severity:** Moderate Severity      **Actionability:** Highly actionable**Notes:** Lack of comprehensive survey effort and monitoring to identify additional occurrences and status/trends of individual populations**IUCN Level 1 Threat**      **Biological Resource Use****IUCN Level 2 Threat:**      Logging and Wood Harvesting**Severity:** Moderate Severity      **Actionability:** Moderately actionable**Notes:** In riparian zone where forest canopy is lost or degraded**IUCN Level 1 Threat**      **Natural Systems Modifications****IUCN Level 2 Threat:**      Dams and Water Management-Use**Severity:** Moderate Severity      **Actionability:** Moderately actionable**Notes:** Species requires seasonally flooded sedge meadows on streams and rivers; dams alter natural flooding regimen, permanently inundate riparian wetlands and alter habitat; water withdrawal for irrigation or other large scale consumptive uses**IUCN Level 1 Threat**      **Transportation and Service Corridors****IUCN Level 2 Threat:**      Roads and Railroads**Severity:** Moderate Severity      **Actionability:** Moderately actionable**Notes:** In riparian zone where forest canopy is lost or degraded or water quality is impacted; in stream corridor where bridge crossing impacts stream banks, bottom or water quality**IUCN Level 2 Threat:**      Utility and Service Lines**Severity:** Moderate Severity      **Actionability:** Moderately actionable**Notes:** In riparian zone where forest canopy is lost or degraded (e.g., clearing and maintenance of transmission lines, access); in stream corridor where utility crossing impacts stream bed

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**IUCN Level 1 Threat**      **Climate Change and Severe Weather**

**IUCN Level 2 Threat:**      **Habitat Shifting or Alteration**

**Severity:** Moderate Severity

**Actionability:** Actionable with difficulty

**Notes:** Impacts of climate change (e.g., increased water temperature, lack of snow melt, etc)

### Species Level Conservation Actions Assigned to Tomah Mayfly:

*\*Only species specific conservation actions that address high (red) or medium-high (orange) priority stressors are summarized here.*

<b>Conservation Action</b>	<b>Category:</b> Survey and Monitoring	<b>Biological Priority:</b> high	<b>Type:</b> on-going
Develop and implement a systematic protocol for monitoring population size, demographics, and trends.			

#### Stressor(s) Addressed By This Conservation Action

Lack of knowledge

### Guild Level Conservation Actions:

This Species is currently not attributed to a guild.

### Broad Taxonomic Group Conservation Actions:

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

### Habitat Based Conservation Actions:

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

*The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.*